Washington Department of
FISH and WILDLIFE

WDFW Shellfish Import Approval Requirements for Shellfish Aquaculture

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Importing shellfish and aquatic invertebrates to Washington

There are many organisms harmful to Washington's ecologically and economically vital shellfish that could be accidentally introduced to our waters without proper precautions. Shellfish Import permitting requirements are intended to reduce risk associated with introducing and spreading shellfish disease agents and harmful aquatic pest organisms to Washington's waters. As specified in WAC 220-340-050, it is unlawful to import shellfish from out of state to Washington State without first obtaining a Washington state Shellfish Import Permit. "Shellfish" is defined to include all aquatic invertebrates.

Who needs a shellfish import permit: Anyone seeking to import or possess live aquatic invertebrates from outside the state of Washington into the state. This includes but is not limited to aquatic invertebrates (other than insects) intended for aquaculture, research, public or personal display, or education. This also excludes shellfish considered market-ready, intended for immediate human consumption and not intended to be placed into or to come into contact with state waters.

WDFW shellfish import requirements utilize a combination of spatial restrictions, testing, seasonal testing and import windows, thresholds, and a mix of tools intended to exclude harmful organisms from shellfish stocks prior to importation and transfer. Import requirements specific to aquacultural purposes are detailed here.

Questions may be directed to:

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WDFW Shellfish Import Approval Requirements for Shellfish Aquaculture:

- **For applicants who have not previously been approved for import of marine invertebrates, see WAC 220-370-200.**
- **Requirements outlined below apply to all renewal applications to import live shellfish for aquaculture purposes.**

General requirements (all species):

For import of shellfish larvae, seed or broodstock into Washington for hatchery production and aquatic farming:

- WDFW requires valid infectious shellfish disease agent testing ("health certifications") as a tool to evaluate risk for introducing shellfish pathogens. Test results must demonstrate low risk (no presence detected) or detection below acceptable threshold limits (page 4);
- Hatchery operators must provide annual health certifications for source broodstock utilized for production (variance for Washington-sourced geoduck may be available);
- Hatchery operators must provide annual health certifications of representative samples of the larvae, seed or broodstock to be imported;
- Secondary seed producers, i.e. FLUPSY or nursery operators, which utilize larvae or seed acquired from hatchery sources, must identify the larvae or seed sources and provide current broodstock health certifications for the larvae or seed source (this may be provided by the original seed/larvae producer);
- Certifications are valid for 12 months; applicants may be given a grace period of up to 60 days with prior arrangement from WDFW in limited instances (e.g. where animals for testing are unavailable, or where a seasonal testing window is required by WDFW that supports an extension);
- Certifications must be provided by a WDFW-approved pathologist or laboratory (see page 6);
- Production of species native to Washington (such as geoduck) must utilize 100% Washington-sourced wild broodstock which have been previously approved by WDFW. Documentation (such as purchase receipts, fish receiving tickets, or customs documentation) will be required;
- Imported invertebrates are subject to all additional conditions of permit (issued with permit).

Disease Screening Sample Sizes (n):

- Minimum sample and screening precision requirements target 95% confidence level of detecting a minimum pathogen prevalence of 5% (sample size n=60).
- Sampling size where WDFW determines there is increased risk may be increased to 95% confidence of detecting a specific pathogen minimum prevalence of 2% (sample size n=175).
- Samples must be representative of source broodstocks and life stages to be imported.
- Histological examination for pathogens: n=60 live adults, juveniles, seed or larvae.
- PCR examination for specific pathogens: n=60 live adults, juveniles, seed or larvae.

- Other examination methods require prior approval from WDFW.

Special requirements (all locations/all species):

- Additional sampling, increased sample sizes and testing may be required based upon detection of a disease of concern, reported mortality, movements of products deemed of high risk or other events or actions within the West Coast Commerce Region and Hawaii that WDFW deems to pose a risk of disease introduction. These may be in addition to the general requirements and sample sizes listed above, and may include multiple locations.

Specific Pathogen Testing Requirements by Species:

Table 1. *WDFW requirements for species-specific screening requirements.*

Species	Histology	PCR	
Crassostrea/Magallana species (all species and life stages)	Yes	OsHV-1 (Calif. & microvariant)	
Crassostrea sikamea (Kumamoto oyster)	Yes	*Mikrocytos mackini* (broodstock only)	
Crassostrea virginica (Eastern oyster)	Yes	*Perkinsus* spp.	*Haplosporidium* spp.
Mytilus mussels (all)	Yes	*Marteilia refringens*	
Manila clams (*V. philippinarum*)	Yes	*Perkinsus* spp.	
Geoduck (*P. generosa*)	Yes	--	
All other permissible* bivalve species	Yes	Additional requirements may apply	

*Established species from existing import areas of known health status; See WAC 220-370-200 and 220-370-050

Additional disease (pathogen)-specific requirements (threshold limits)

- Imports of *Crassostrea* oysters with screening results indicating prevalence levels of ***Mikrocytos mackini*** (Denman Island Disease) of higher than 10% will not be permitted, except into WDFW-approved isolation or quarantine facilities; additional import conditions will apply (Table 2).

Sampling Timing Requirements ("Seasonal testing window"):

Crassostrea/Magallana oyster species (Pacific oyster, Kumamoto oyster, Eastern oyster)

- **May 1-October 31:** *Crassostrea/Magallana species including C. sikamea* seed and broodstock intended for shipment to Washington: Sampling for histological examinations and PCR for specific pathogens other than *Mikrocytos mackini* PCR must occur between May 1 and October 31 of each year.
    - Animals held in higher ambient temperatures, such as in a hatchery setting, may apply for a variance from seasonal testing window with prior approval from WDFW. Supporting documentation (such as monitoring logs or photos of thermometer) required.
    - Larvae may be sampled at any time (exempt from seasonal testing window).

Crassostrea sikamea (Kumamoto oyster)

- **December 1-April 30:** Specific to adult Kumamoto (such as broodstock) oyster importations, sampling of oysters for *Mikrocytos mackini* infection must use PCR and must occur between December 1 and April 30 of each year.

All other species and life stages

- May be sampled at any time

Import Requirements by State, Province or Region:

Only species and source areas listed below are approved for import of live invertebrates (non-market ready[1]) into Washington. Source waterbodies not listed below do not qualify for import into Washington, except that some additional species/locations may qualify for import into WDFW-approved quarantine only.

Table 2. *WDFW import requirements by jurisdiction.*

State	Areas approved	Species approved	Additional Restrictions
*Note: only species and areas listed are permissible for imports**			
Alaska	Craig Kake Kachemak Bay Ketchikan Seward	*C. gigas* (Pacific oyster)	--
British Columbia	Closed facilities only**	*C. gigas* (Pacific oyster) *P. generosa* (Geoduck)	• Broodstock and seed/larvae must be certified disease-free; • All geoduck seed/larvae must be progeny of WDFW-approved, disease-free wild broodstock of Washington origin; • Additional broodstock requirements may apply as condition of permit.
California	Humboldt Bay	*C. gigas* (Pacific oyster) *C. sikamea* (Kumamoto oyster) *R. philippinarum* (Manila clam)	• Kumamoto oysters: import allowed April 1 – Nov 1 only (both adults and seed)
Hawaii	Hilo (closed facility) NEHLA (closed facility)	*C. gigas* (Pacific oyster) *C. virginica* (Eastern oyster)*** *C. sikamea* (Kumamoto oyster) *R. philippinarum* (Manila clam)	--
Oregon	Netarts Bay Tillamook Bay Yaquina Bay	*C. gigas* (Pacific oyster) *C. sikamea* (Kumamoto oyster) *M. galloprovincialis* (Mediterranean mussels) *P. generosa* (geoduck) *R. philippinarum* (Manila clam)	• Kumamoto oysters: import allowed April 1 – Nov 1 only (both adults and seed)

*Species and areas not listed are not currently permissible for imports to Washington waters.
**Closed facilities must be approved by WDFW and be designed to prevent co-mingling with other non-approved species, with invertebrates from non-approved source locations, with outside waters, or with water from containers holding non-approved invertebrates. Additional conditions may apply.
***Broodstock for production of C. virginica must be pre-approved by WDFW.

[1] See definitions, WAC 220-370-050; WDFW consider "market-ready" to mean non-living, packaged invertebrates not-intended for contact with state waters; controls to prevent living invertebrates destined for the marketplace will be evaluated on a case-by-case basis. Living invertebrates residing in the marketplace are not to come into contact with state waters including wet storage that drains to state waters or into storm drains or sanitary sewers.

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